

P. BRUNAVSKIS

Page 1 of 7

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/445,375A

DATE: 07/19/2000
TIME: 16:24:22

Input Set : A:\DYOU23SEQ.TXT
Output Set: N:\CRF3\07192000\I445375A.raw

4 <110> APPLICANT: Kingsman, Susan M.
5 Bebbington, C.R.
6 Ellard, Fiona M.
7 Carroll, Miles W.
9 <120> TITLE OF INVENTION: VECTOR
12 <130> FILE REFERENCE: DYOUN23.001APC
14 <140> CURRENT APPLICATION NUMBER: 09/445375A
15 <141> CURRENT FILING DATE: 2000-03-21
17 <150> PRIOR APPLICATION NUMBER: PCT/GB98/01627
18 <151> PRIOR FILING DATE: 1998-06-04
20 <150> PRIOR APPLICATION NUMBER: GB9711579.4
21 <151> PRIOR FILING DATE: 1997-06-04
23 <160> NUMBER OF SEQ ID NOS: 24
25 <170> SOFTWARE: FastSEQ for Windows Version 4.0
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 910
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv.1.
35 <221> NAME/KEY: misc_feature
36 <222> LOCATION: (1)...(910)
37 <223> OTHER INFORMATION: n = A,T,C or G
39 <400> SEQUENCE: 1
40 gaggtccagc ttccatgtac tggacactgac ctgggtgaagc ctggggcttc vsgdvkgasa 60
41 gtgaatcat cctgcacggc ttctggttac tcattcaactg gctactacav ksckasgst 120
42 gyytgcactg ggtgaacggc agccatggaa agagccctga gtggatttggc cgtnmhvsksh 180
W--> 43 gkswgrattat atccataacaat tggtgttact ctctacaacc agaaattcaa ggacaannng 240
W--> 44 vtynkdkgg ccataatcaaat tgtagacaag tcataccacca cagccatcat ggagctccat 300
45 vdkssttaym gcagcctgac atctggggac tctgcggctt attactgtgc aagatctact 360
46 rstsdsavy carstatgat tacgaactat gttatggact actggggtca agtaacctca 420
W--> 47 gtcacmtnyv mdywgvtsvt cgtctccctca ggtgggtgtg ggagccgtgg tggccggact 480
48 ggcggcgcc vssgggggg ggtggggatc tagtattgtt atgaccggaca ctccccacatt 540
49 cctgttgtt tcagcagssv mtittsagga gacagggtta ccataacctg caagggccagt 600
W--> 50 cagagtgtga gtaatgagdr vttckassvs ndttagdtt ggtaccaaca gaagccagg 660
51 cagtctcta cactgctcat atvawykgst cctataacatc cagtcgtac gctggagttcc 720
52 ctgatcgtt cattggcagt sytssryagv drgsggatat gggacccgatt tcactttcac 780
53 catcagcaat ttgcaggctg aagaggttdt tstdccctgg cagtttattt ctgtcagccaa 840
W--> 54 gattataatt ctccctccgac gttcavycd ynstgtggag gcaccaagct ggaaatcaa 900
55 cgggggttkkr 910
57 <210> SEQ ID NO: 2
58 <211> LENGTH: 2239
59 <212> TYPE: DNA
60 <213> ORGANISM: Artificial Sequence
62 <220> FEATURE:
63 <223> OTHER INFORMATION: Coding sequence of a 5T4scFv designated 5T4scFv1.
65 <221> NAME/KEY: misc_feature

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66 <222> LOCATION: (1)...(2239)
 67 <223> OTHER INFORMATION: n = A,T,C or G
 69 <400> SEQUENCE: 2
 70 aagcttccac catggatgg agctgtatca tcctttctt ggttagcaaca astmgwscva 60
 71 tgctacagg gtccactcc aggtccagct tcagcagtct ggacctgacc tatgvhsvsg 120
 72 dggtaagcc tgggcttca gtgaagat cctgcggc agtgcgttac tvkgasvks 180
 73 kasgycattt actggactt acatgcgtt ggtgaagcc agccatggaa agacgstgyy 240
 74 mhwvkshgks cttagtggta ttggacgtt taatcttacaa aatggtttca cttcttacaa 300
 W--> 75 wgrnnnngtvty nccggaaaat caaggacaa gccatattaa ctgttagacaa gtcatccacc 360
 76 akkdkatvdk sstcagccta catggagctc cgcaggctga catctgttca ctctgggtc 420
 77 tattaymrst sdsavytact gtgcaagatc tacttgatc acgaaacttata ttatggata 480
 W--> 78 ctggggycar stmttnyvmdy wgtcaagtaa cctcgttcac cgctccctca ggtgtgtgt 540
 79 ggagccgttgg tgvtsvtvss gggggggggc gcactggcg cggccggatct agtattgtga 600
 80 tgacccagac tccccacagggtt ggggssvmtt ttctctgtt gttcagcag gagacagggt 660
 81 taccataacc tgcaaggcca gvsagdrvtt ckastcagag tggatgtatc gatgtatc 720
 W--> 82 ggtaccaaca gaagccaggg cagtsvndv awykgtctt acactgttca tatecttatac 780
 83 atccagtcgc tacgtggag tcccttsyt ssryavgt cgcttcatttgc gcatgtgata 840
 84 tggggacggat ttcactttca ccatacgdr sggtttsacttgcagg ctgaagacct 900
 85 ggccgttat ttctgtcagc aagattatata adavycdyat tctctccga cgttccgttgg 960
 W--> 86 agggaccaag ctggaaatca aacggggccns tgggtkkkrat cacaacaggg cccatcggtc 1020
 87 ttccccctgg cacccttc caagacccs tkgsvassks tctctggggggc acagcggccc 1080
 88 ctgggtcggc tggtaagga ctacttcccc gsggttacgv kdyaacccgtt gacgggttcg 1140
 W--> 89 tggaaactcag ggcgccttcg cagcggcggtc cacvtvswns gatgsvhacc ttcccggtc 1200
 90 ttctcagtc ctcaggactc tactccctca gcagcgttav ssgyssvvg tgaccgtgcc 1260
 W--> 91 ctccagcagc ttgggcaccc agacctatc ctgcaacgvt vsssgttycn tgaatcacaa 1320
 W--> 92 gcccagcaac accaagggtt acaaaggaaat tgagcccaaa vnhsnts kkvktcttgt 1380
 93 gacaaactc acacatgccc acgtgttccca gcactgttca tcctcdkth tccagggggg 1440
 94 accgttgcgtt ttcccttc ccccaaaacc caaggacacc ctcaggsvkk dttgatctcc 1500
 95 cggcccttcg aggttcatgt cgtgggtgt gacgtgagcc acmsrtvtvc vvdvshgaa 1560
 W--> 96 accctgaggta caagtccaaat tggtaatgtt acggcgttga ggtgcadvkn wyvdgvvhata 1620
 W--> 97 atgccaagac aaagccgcgg gaggaggactt acaaaggatc gtaccgttgnak tkrnyntyr 1680
 W--> 98 tggtcagcgt ctcaccgtc ctgcaccagg actggctgaa tggcaaggag vsvsvthdw 1740
 W--> 99 gktacaatgtt caatggatcc aacaaaggccc tcccaaggcccc catcgagaaa acyckvsnk 1800
 100 aakttatc caaaggccaa gggcggcccc gagaaccaca ggtgtacacc ctgcskakgr 1860
 W--> 101 vytccccatc cggggatgtt ctgaccaaga accaggatcgtt ctcgtactgc ctgsrdtknv 1920
 102 stcgtaaag gcttctatcc cagcgcacatc gctgtggagt gggagagatc tggvgkysda 1980
 W--> 103 vwsnngcagc cggagaaacaa ctacaagacc acgttccccc tctgtggactc cgacgnnykt 2040
 104 tvdsdgtctt ttcttcttcc acagaacgtt caccgtggac aagagcagggt ggcaggssyk 2100
 W--> 105 tdksrwca gggaaacgtt tctcatgttca cgtgtatgtt ggggtcttc acaaccagnv 2160
 W--> 106 scsvmhahnh ctacacgcag aagagcttcc cctgtcttcc gggtaatga gtgcacggc 2220
 107 ytksssgkvr rcaagctts 2239
 109 <210> SEQ ID NO: 3
 110 <211> LENGTH: 1809
 111 <212> TYPE: DNA
 112 <213> ORGANISM: Artificial Sequence
 114 <220> FEATURE:
 115 <223> OTHER INFORMATION: Coding sequence of B7-1.5T4.1
 117 <221> NAME/KEY: misc_feature
 118 <222> LOCATION: (1)...(1809)

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119 <223> OTHER INFORMATION: n = A,T,C or G
121 <400> SEQUENCE: 3
122 atggccaca cacggaggca gggAACATCA ccatccaAGT gtccataCCT mghrrgtss 60
W--> 123 kcycaatttc ttTCAGCTCT tggTGTGCGC tggTCTTCT CACTTCTGTT cagnvagshc 120
124 sgtgttatcc acgtgaccaa ggaAGTGGAA gaAGTGGCAA CGCTGTCCTG tgvhvtkvkv 180
W--> 125 atscggtcac aatgtttctg ttGAAGAGCT ggcACAAACT CGCATCTACT ggCAGHNVSV 240
126 atrYWAAGG AGAAGAAAAT ggtGCTGACT atGATGTCG gggACATGAA tatatkkmv 300
W--> 127 tmmSGdmngg cccgagTACA agAACCGGAC catCTTGTAT atcaactata acctCTCCWY 360
W--> 128 knrtdnnsa ttgtgatCCT ggCTCTGCgc CCATCTGACG agggACACATA CGAGTGTGTV 420
129 arsdgycvt gttCTGAAGT atGAAAAGA CGCTTCAAG CGGGACACCC TGGCTGAAGV 480
130 kydkdakrhat gacGTTCAc ACCTCCCTAC ACCTGTATA TCTGACTTTV 540
131 tsvkadTSSd GAATTCCAa CTCTAATAT TAGAAGGATA ATTGCTCAA CCTCTGGAGG 600
W--> 132 tsnrrcstsg gtttccaga gCCTCACCTC tCCTGGTTGG AAAATGGAGA AGAATTAAT 660
W--> 133 ghswngncca tcaacacaaC AGTTCCAA gatCCTGAAA CTGAGCTCTA TGCTGTANT 720
134 tvsdyavag cagcaaaCTG gatttcaata tgacaACCAA CCACAGCTC ATGTGTCTSS 780
W--> 135 kdnmtnhsm ccataAGTA gTGACATTa AGATGAAATC AGACCTCAA CTGGAATACA 840
W--> 136 akyghrvnntn wntCCAAGCA AGAGCATTtT CCTGATGGAG GCGGGGGGATC CGAGGTCAG 900
137 ctTkhdggg gsvcagcagt CTGGACCTGA CCTGGTGAAG CCTGGGGCTT CAGTGAAGAT 960
138 atcsgdvkga svksctgaa ggCTCTGGT tactcattca CTGGCTACTA CATGCACTGG 1020
139 gtgackasg stgyymhwva gcaGAGCCAT gggAAAGAGCC TTGAGTGGAT TGGACGTATT 1080
W--> 140 aatCCTAAck shgkswgrnn aatgtgtta CTCTCTACAA CCAGAAATTC AAGGACAAGG 1140
W--> 141 ccataTTAAc ngvtynkkdk atttagaca AGTCATCCAC CACAGCCTAC ATGGAGTCC 1200
142 gcagcctgac atvdkssttA ymrstctgag gactCTGCGG tCTATTACTG TGCAAGATCT 1260
W--> 143 actatgatTA cgaacsdsv yycarstmtn tATGTTATGG ACTACTGGG TCAAGTAACC 1320
144 tcagtccacG tCTCTCAGG yvMDywgvtv vtvssGTGGT ggtgggAGCG gttggTgggg 1380
145 cactggcgc ggcGAGATCTA GTTGTGGGGS gggGTGGGGS STGATGACCC AGACTCCAC 1440
146 attcCTGTT GTTCTAGCAG GAGACAGGGT TVMTTtVsAg DRVACCATAA CCTGCAAGGC 1500
W--> 147 cagTCAGAGT GTGAGTAATG ATGAGTCTG GTATTCKASS VSNDVawyCC AACAGAAAGCC 1560
148 aggGCAgTCT CCTACACTGC TCAATCCATA TACATCCAKG STSYTSGTCG CTACGCTGGA 1620
149 gTCCCTGATE GCTTCATTGG CAGTGGATAT GGGACGSRYA GVDRGSGYGT GATTCACTT 1680
150 tcaccatCAG CACTTGCAG GCTGAAGACC TGGCAGTTA DTtSTADAVY TTTCTGTcAG 1740
W--> 151 caagattata attCTCCTCC gacGTTGCGT ggAGGACCA CDYNSTGGGT AGCTGGAAAT 1800
152 caaaATAKK 1809
154 <210> SEQ ID NO: 4
155 <211> LENGTH: 887
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Human B7-2 sequence followed by a linker.
162 <221> NAME/KEY: misc_feature
163 <222> LOCATION: (1)...(887)
164 <223> OTHER INFORMATION: n = A,T,C or G
166 <400> SEQUENCE: 4
W--> 167 atggactga gtaacattct ctttgtatG gCCTTCCTGc tCTCTGGTC mgsnvmasga 60
W--> 168 tgctcctctg aagatTCAG CTATTTCAa TGAGACTGCA gacCTGCCAT akayntadgc 120
W--> 169 caatttGAA ACTTCaaaA CCAAAGCCTG AGTGAAGCTAG TAGTATTCA nsnssvvtgg 180
W--> 170 caggaccagg aaaACTTGTT tCTGAATGAG GTATACTTAG GCAAAGAWDN VNVYKGAAA 240
171 tttgacGAGT tTCATTCCAA GTATATGGC CGCACAAGTT ttGATTKDSV hskymgrtsd 300
W--> 172 cggacAGTg gaccCTGAGA CTTCACAAATC TTCAgATCA GGACAAGGGC SDSWTRHnkd 360

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/445,375A

DATE: 07/19/2000
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Input Set : A:\DYOU23SEQ.TXT
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L:43 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:44 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:47 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:50 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:78 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:86 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:91 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:96 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:99 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:101 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:103 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:105 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:106 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:123 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:125 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:127 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:128 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:133 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:147 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:169 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:170 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:174 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:175 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:177 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:179 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4